

Comparisons of Job Characteristics

Focus Occupation: [Biological Scientists, All Other \(19-1029\)](#)

Associated Occupation: [Food Scientists and Technologists \(19-1012\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 57

Focus Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation: Food Scientists and Technologists (19-1012)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Chemistry	4.8	19.8	16.4	<<	Extensive education and/or training may be required
Production and Processing	6.0	18.6	3.1	<<	Extensive education and/or training may be required
Biology	3.7	16.8	24.4	>>	Current knowledge level is likely more than sufficient
Food Production	2.1	15.9	1.2	<<	Extensive education and/or training may be required
Mathematics	9.2	14.5	14.7	0	Current knowledge level may be sufficient
Engineering and Technology	5.7	13.9	5.9	<<	Extensive education and/or training may be required
Physics	4.3	13.1	5.9	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation: Food Scientists and Technologists (19-1012)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Writing	9.2	13.2	16.2	>	Skill level is likely sufficient
Active Learning	8.7	12.5	15.0	>	Skill level is likely sufficient
Complex Problem Solving	9.1	12.3	13.1	0	Current skill level may be sufficient
Monitoring	9.9	12.3	12.6	0	Current skill level may be sufficient

Quality Control Analysis	5.9	10.5	7.6	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	10.5	11.0	0	Current skill level may be sufficient
Negotiation	6.8	9.7	6.7	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	9.7	10.5	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 97

Focus Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation: Food Scientists and Technologists (19-1012)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Inductive Reasoning	10.2	14.5	16.1	>	Current ability level is likely sufficient
Written Comprehension	11.0	14.5	18.5	>>	Current ability level is likely more than sufficient
Problem Sensitivity	11.1	13.9	14.4	0	Current ability level may be sufficient
Category Flexibility	9.0	13.5	13.2	0	Current ability level may be sufficient
Deductive Reasoning	10.6	13.5	15.6	>	Current ability level is likely sufficient
Written Expression	9.8	13.3	17.9	>>	Current ability level is likely more than sufficient
Originality	7.6	11.1	12.0	0	Current ability level may be sufficient
Fluency of Ideas	7.6	11.0	12.6	>	Current ability level is likely sufficient
Number Facility	6.3	11.0	11.8	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	10.8	13.3	>	Current ability level is likely sufficient
Time Sharing	6.6	8.5	6.9	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 72

Focus Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation: Food Scientists and Technologists (19-1012)

Tools and Technologies	Exclusivity
Autoclave and sterilizer equipment and accessories	12
Business function specific software	1
Chemical evaluation instruments and supplies	10
Chromatographic measuring instruments and accessories	16
Clinical and diagnostic analyzers and accessories and supplies	18

Computers	1
Content authoring and editing software	1
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Indicating and recording instruments	2
Industry specific software	1
Laboratory baths	24
Laboratory centrifuges and accessories	13
Laboratory electrophoresis and blotting system and supplies	26
Laboratory heating and drying equipment	13
Laboratory incubating equipment	20
Laboratory ovens and accessories	15
Laboratory water purification equipment and supplies	29
Pipettes and liquid handling equipment and supplies	16
Spectroscopic equipment	10
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.